

U.S. Patent Application Serial No. 09/856,457
Response dated August 25, 2003
Reply to OA of **March 27, 2003**

REMARKS

Claims 1-7 and 9-11 are pending in this application, with claims 10 and 11 currently withdrawn from consideration. Claim 8 has been canceled without prejudice or disclaimer and claims 1, 2, 5-7 and 9-11 have been amended herein.

Election/Restriction (Office action point no. 1).

Applicants respectfully elect Group I (claims 1-9) without traverse of the restriction requirement.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite (Office action point no. 6).

The rejection is overcome by the amendments to the claims. In particular, the amendment to claim 1 clarifies the structure of the light guide plate by reciting the incidence face, the emission face and the nonincidence face. Support for these elements may be found in the specification and in original claim 2. The structural relationship between these elements has been clarified.

In addition, the composition of the light guide plate in claim 1 is more specifically recited. Support for the recitation regarding the soft polymer may be found in the specification on page 23, lines 13-17, with the soft polymers discussed in detail on the following pages. Support for the recitation of the thermoplastic resin containing alicyclic structure may be found in the specification on page 10, lines 5-8, with alicyclic structures discussed in detail on the following pages.

In claim 6, the term "type" has been deleted.

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Claims 1 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara (JP 07-118344) (Office action point no. 8).

The rejection of pending claims 1, 6, 7 and 9 is overcome by the amendments to the claims. As amended, claim 1 recites that the light guide plate is obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure.

The light guide plate of Shinohara JP'344 is not obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure, since no soft polymer is used. Applicants submit that the reference does not suggest the use of a soft polymer or the effects of using a soft polymer.

Claims 1 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara (JP 08-094852) (Office action point no. 9).

The rejection of pending claims 1, 6, 7 and 9 is overcome by the amendments to the claims. As amended, claim 1 recites that the light guide plate is obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure.

The light guide plate of Shinohara JP'852 is not obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure, since no soft polymer is used. Applicants submit that the reference does not suggest the use of a soft polymer or the effects of using a soft polymer.

Claims 1 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara (U.S. Patent No. 5,516,456) (Office action point no. 10).

The rejection of pending claims 1, 6, 7 and 9 is overcome by the amendments to the claims.

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As amended, claim 1 recites that the light guide plate is obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure.

The light guide plate of Shinohara '456 is not obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure, since no soft polymer is used. Applicants submit that the reference does not suggest the use of a soft polymer or the effects of using a soft polymer.

Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (United States Patent No. 6,151,169) (Office action point no. 11).

Applicants respectfully disagree with the Examiner that Kim '169 is a reference under 35 U.S.C. 102(b). Kim '169 issued on November 21, 2000, while the present application is the 371 of an international application filed on December 7, 1999. Therefore, December 7, 1999, is the effective U.S. filing date of the present application. Applicants will therefore treat Kim '169 as a reference under 35 U.S.C. 102(e) as of its filing date of December 4, 1998.

The rejection is overcome by the amendments to the claims. As amended, claim 1 recites that the light guide plate is obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure.

The light guide plate of Kim '169 is not obtained by melt molding a soft polymer and a thermoplastic resin containing alicyclic structure. Kim discloses generally that the light guide "is formed in the shape of a panel from a transparent material including plastics, such as PMMA" (column 1, line 50). Applicants submit that the reference does not suggest the use of a resin containing alicyclic structure.

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Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al. (U.S. Patent No. 5,575,549) in view of Shinohara et al. (U.S. Patent No. 5,516,456) or Shinohara et al. (JP'344) or Shinohara et al. (JP'852) (Office action point no. 13).

The rejection of pending claims 1-7 and 9 is overcome by the amendments to the claims. As discussed above, none of the references Shinohara et al. '456, Shinohara et al. JP'344, Shinohara et al. JP'852 discloses the use of a mixture of a soft polymer and a polymer having an alicyclic structure, since no soft polymer is used in these references. Ishikawa et al. also does not disclose this limitation of the claims. Applicants also submit that none of these references suggests or motivates melt molding a soft polymer and a thermoplastic resin containing alicyclic structure.

In further support of this argument, Applicants here submit a Declaration under 37 CFR 1.132 by Teiji Kohara, an employee at Zeon Corporation. In the Declaration, experiments are presented which demonstrate that the inventive light guide plate made by molding of a soft polymer and a thermoplastic resin containing alicyclic structure produces results that are clearly superior to those made without use of the soft polymer. In the results in Table 1 on page 11, it can be seen that the luminance maintaining rate is much higher in Plates A-D, in which the soft polymer is used, compared to Plates E-H, in which the soft polymer is not used.

Applicants assert that the advantageous effect of the combination of soft polymer and thermoplastic resin containing alicyclic structure is not suggested in any of the cited references, and that this effect is therefore unexpected over these references. Applicants therefore submit that claims 1-7 and 9 are novel and non-obvious over Shinohara et al. '456, Shinohara et al. JP'344, Shinohara et al. JP'852 and Ishikawa et al., taken separately or in combination.

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Reconsideration of the rejections is therefore respectfully requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP



Daniel A. Geselowitz, Ph.D.
Agent for Applicants
Reg. No. 42,573

DAG/plb
Atty. Docket No. 010742
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930



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Enclosures: Declaration under 37 CFR 1.132

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